

Title (en)
Wavelength tunable laser

Title (de)
Wellenlängenabstimmbarer Laser

Title (fr)
Laser à longueur d'onde accordable

Publication
EP 0805530 B1 20030212 (EN)

Application
EP 97107117 A 19970429

Priority
JP 13285396 A 19960430

Abstract (en)
[origin: EP0805530A2] An object of the present invention is to provide a wavelength selectable laser oscillator in wavelength tunable laser by which high-speed tuning of wavelength can be achieved while utilizing continuous-wave laser beam as the excited laser beam. The wavelength selectable laser oscillator in wavelength tunable laser comprises a laser resonator composed of opposed mirrors each having a prescribed reflectivity on the outgoing side and a total reflection mirror which does not transmit light, but reflects the light; a wavelength tunable laser medium disposed in the laser resonator and capable of laser oscillation in a wavelength zone of a prescribed range; an acousto-optical crystal disposed in the laser oscillator and to which is inputted the outgoing light from the wavelength tunable laser medium; an acoustic wave inputting means mounted on the acousto-optical crystal and for inputting an acoustic wave to the acousto-optical crystal; and a continuous-wave laser for inputting excited laser beam into the laser resonator; the laser beam outputted from the mirrors on the outgoing side being utilized as the outgoing laser beam from the laser resonator.
<IMAGE>

IPC 1-7
H01S 3/106; **H01S 3/08**; **H01S 3/094**

IPC 8 full level
H01S 3/10 (2006.01); **H01S 3/106** (2006.01); **H01S 3/108** (2006.01); **H01S 3/16** (2006.01); **G02F 1/11** (2006.01); **H01S 3/081** (2006.01); **H01S 3/094** (2006.01)

CPC (source: EP KR US)
H01S 3/10 (2013.01 - KR); **H01S 3/1068** (2013.01 - EP US); **G02F 1/116** (2013.01 - EP US); **H01S 3/081** (2013.01 - EP US); **H01S 3/094** (2013.01 - EP US)

Citation (examination)

- EP 0780936 A2 19970625 - RIKAGAKU KENKYUSHO [JP]
- TAYLOR D J ET AL: APPLIED PHYSICS LETTRES, 15 October 1971, vol.19, no.8, pages 269-271
- KUSTERS ET AL: JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, April 1974, vol.64, no.4, pages 434-440
- ISAENKO ET AL: KVANTOVAYA ELEKTRONIKA, MOSKVA, Oct. 1988, USSR, vol.15, no.10, pages 2009-2010

Designated contracting state (EPC)
CH DE FR GB LI

DOCDB simple family (publication)
EP 0805530 A2 19971105; **EP 0805530 A3 19980128**; **EP 0805530 B1 20030212**; CA 2203733 A1 19971030; CA 2203733 C 20080708; CN 1100375 C 20030129; CN 1180952 A 19980506; DE 69718960 D1 20030320; DE 69718960 T2 20030618; JP 3421194 B2 20030630; JP H09298331 A 19971118; KR 100451116 B1 20041204; KR 970072571 A 19971107; US 5923685 A 19990713

DOCDB simple family (application)
EP 97107117 A 19970429; CA 2203733 A 19970425; CN 97113222 A 19970430; DE 69718960 T 19970429; JP 13285396 A 19960430; KR 19970016560 A 19970430; US 84816297 A 19970429